



## Commonwealth of Kentucky Energy and Environment Cabinet

Steven L. Beshear, Governor

Len Peters, Secretary

**FOR IMMEDIATE RELEASE**

**CONTACT: Allison Fleck, 502-564-3410**

### **Harmful algal blooms found at four more Kentucky lakes**

*Division of Water advises lake visitors to make informed decisions*

**FRANKFORT, Ky. (Oct. 18, 2013)** – The Kentucky Division of Water (DOW) has confirmed the presence of harmful algal blooms (HABs), or cyanobacteria, levels exceeding recommended safety thresholds at four lakes in central Kentucky. They include Beaver Lake in Anderson County, Guist Creek Lake in Shelby County, Lake Reba in Madison County and Willisburg Lake in Washington County.

The World Health Organization has established a “cautionary” threshold of cyanobacteria cell concentrations at 100,000 cells per milliliter (/ml). The four Kentucky lakes -- identified in the table below -- were found to exceed this threshold during two rounds of testing by DOW.

| Lake             | Date Tested | HAB Cells/ml |
|------------------|-------------|--------------|
| Beaver Lake      | Aug. 27     | 1,000,000    |
| Beaver Lake      | Oct. 10     | >100,000     |
| Guist Creek Lake | Aug. 5      | 135,000      |
| Guist Creek Lake | Oct. 10     | 100,000      |
| Reba Lake        | July 17     | >20,000      |
| Reba Lake        | Oct. 15     | 130,000      |
| Willisburg Lake  | Aug. 27     | >100,000     |
| Willisburg Lake  | Oct. 10     | 100,000      |

**Kentucky lakes investigation – HAB cell counts**

HABs produce toxins that may be hazardous to animals and humans. Symptoms of HAB exposure may include gastrointestinal symptoms such as stomach pain, nausea, vomiting and diarrhea; skin and eye irritation; and/or throat irritation or breathing difficulties.

If you are concerned that you have symptoms that are a result of exposure to HABs, please see your doctor and call your local health department.

DOW has been working with a number of agencies to develop an HAB testing protocol for Kentucky lakes as well as public notification procedures when HABs are identified at levels of concern. The protocol will consist of mechanisms to perform monitoring and to issue “advisories” when cell counts exceed 20,000 cells/ml and “cautions” when they exceed 100,000 cells/ml at affected lakes.

Clark Dorman, manager of the DOW Water Quality Branch, said it is important to understand that the issuance of advisories and cautions do not indicate lakes and reservoirs are to be closed to the public. Rather, the advisories and cautions are intended to educate potential users about the water bodies so that they may make informed decisions.

Earlier this year, the U.S. Army Corps of Engineers (USACE) began monitoring USACE-owned lakes in Kentucky for the presence of cyanobacteria. USACE announced excessive levels of cyanobacteria had been identified in Taylorsville, Nolin, Barren, Rough River and Green River lakes, prompting USACE and state officials to issue public warnings to avoid or minimize human and animal contact with algae-infested waters.

The discovery of the presence of the elevated HAB counts in USACE lakes led DOW to initiate HAB testing for 14 other Kentucky lakes which DOW speculated most at risk for HABs and which are used for recreation and/or serve as public water supplies. These initial assessments serve as a means to gauge the magnitude of HAB issues in Kentucky’s lakes. The lakes where DOW conducted its assessments include:

Beaver Lake (Anderson County)  
Guist Creek Lake (Shelby County)  
Willisburg Lake (Washington County)  
Herrington Lake (Boyle, Garrard, Mercer counties)  
Lake Reba (Madison County)  
Wilgreen Lake (Madison County)  
McNeely Lake (Jefferson County)  
Reformatory Lake (Oldham County)  
Bullock Pen Lake (Grant County)  
Boltz Lake (Grant County)

Elmer Davis Lake (Owen County)  
A.J. Jolly Lake (Campbell County)  
Cedar Creek Lake (Lincoln County)  
General Butler State Park (Carroll County)

Better known as blue-green algae, harmful algal blooms occur naturally in the environment. Environmental conditions, including excess phosphorus and nitrogen, sunny conditions, warm temperatures and low-flow or low-water conditions -- contribute to the rapid reproduction and spread of the algae in a waterbody. The more typical green algae, which is not harmful to humans or animals, come in many forms and may appear as underwater moss, stringy mats or floating scum.

Cyanobacteria, on the other hand, appear as slicks of opaque, bright-green paint, but closer inspection often reveals the grainy, sawdust-like appearance of individual colonies of bacteria. The color of the algae may also appear as red or brown.

The following guidelines are recommended to avoid exposure to HABs:

- Direct contact with affected water, including swimming, wading, fishing, paddling, diving and water skiing may result in symptoms. It is advisable to avoid contact with water that has unusual color or where blue-green bacteria have been identified, even if the water appears to be clear.
- People who are prone to respiratory allergies or asthma should avoid areas with harmful algal blooms. Children may be particularly sensitive.
- If contact has been made with water containing blue-green algae, wash off with fresh water. In some cases, skin irritation will appear after prolonged exposure. If symptoms persist, consult your local health care provider.
- Fish fillets (not organs) may be consumed after the fillets have been rinsed in clean, non-lake water. It is advisable to wash any parts of your body that have come into contact with the fish.
- Prevent pets and livestock from coming into contact with HAB-infested waters.

Public water systems depending on lakes for their raw water source should consider monitoring for the presence of HABs and adjust treatment of the water accordingly. Algal blooms are easily addressed through water treatment techniques, and the water produced from these sources is safe to drink.

The presence of excess nutrients in the waterbody can cause algal blooms. Proper management of nutrients from various sources of stormwater runoff in the watershed and proper treatment of nutrients in wastewater play a key role in

managing algal blooms of all kinds. The Division of Water, with other federal and state agency partners and numerous stakeholder groups, is developing a Nutrient Reduction Strategy to address nutrient pollution problems in Kentucky.

###